

Please amend the paragraphs of the specification as follows:

Page 6, lines 3-4:

The antenna may further comprise a ~~Teflon~~ TEFLON®, which is a registered trademark for polytetrafluoroethylene (PFTE), sheath surrounding at least the antenna element. This ensures electrical safety and biocompatibility.

---

Page 8, lines 17-24:

FIG. 1 shows the configuration of the coaxial ring slot array (CRSA) antenna 10 for cardiac ablation. The antenna 10 has a coaxial cable transmission line 11 and an antenna element 12 formed at the distal end of the transmission line 11. The coaxial cable comprises an inner conductor 13, an outer conductor 14 and a ~~Teflon~~ TEFLON® dielectric insulator 15 which provides insulation between the inner 13 and the outer 14 conductors. The insulator 15 has a diameter of about 3 mm, and the conductors about 0.91 mm.

Page 8, lines 25-32:

The antenna element 12 is constructed out of the distal end of the transmission line by first removing the outer conductor 14 of the coaxial cable for the length  $L_l + L_i + L_{ix}$ , exposing a sheath 16 of insulator 15. At the distal end of the antenna element 12 a short length  $L_{is}$  of the ~~Teflon~~ TEFLON® insulation sheath 16 is removed exposing an equally short length 17 of the inner conductor 13. Copper rings 18 are made from copper tubes with a diameter  $r_{hc}$ , and the rings have a width of  $R_w$ . Similar dielectric spacer rings 19 are made out of ~~Teflon~~ TEFLON® material of width  $S_w$ . The dielectric spacer rings 19 are shown only in FIG. 1 (c) for the sake of simplicity.

Page 9, lines 4-14:

When the last, insulating ring has been slipped onto the distal end of the antenna element, the ~~Teflon~~ TEFLON® sheath extends beyond the rings for a short distance  $L_1$  a 'perturbation distance'. To seal off the distal end, hollow copper cap 20 is located partly surrounding the ~~Teflon~~ TEFLON® sheath but with its distal end extending beyond the end of the ~~Teflon~~

TEFLON® sheath. Then both the distal end of the cap 20 and the exposed length 17 of inner conductor 13 are pre-heated with soldering gun, and solder is then melted within the hollowed section 21 between the ring and the inner conductor. When the solder cools, it fuses the inner conductor together with the cap and the cap is partially filled with dielectric insulator. The cap 20 is integrated onto the end of the inner conductor. Between the end of the outer conductor 14 and the cap 20 there is an antenna element 12 comprising copper rings separated by radiation emitting slots.

Page 9, lines 18-24:

The antenna is constructed using TFLEX-402 flexible coaxial cable. It can be seen in FIG. 1(a) that the radius of the rings 18 and 19 is the same as the radius of the outer conductor of the coaxial cable. ~~This radius of the cap~~ The radius  $r_{hc}$  is also seen to be the same as the outer conductor in this Figure. This allows easy insertion of the antenna into the heart via catheters. FIG. 1(b) shows that the cap radius may be larger than the cable, as this is a variable dimension.

Page 9, lines 25-26:

Fig. 1(d) is a block diagram of the antenna of Fig. 1(a). The antenna 10 has a coaxial cable transmission line 11 with an antenna element 12 at the distal end of the transmission line 11. A ~~Teflon~~ TEFLON® sheath 6 (not shown) encapsulates the entire antenna 12 to finish construction. The antenna 10 further comprises a temperature sensor 5 to sense the temperature of the tissue being ablated by the antenna 10. after “construction.

Page 15, lines 8-9:

$D_5$ : The length the cap not surrounding the sheath of insulator ( $D_5 = D_T - D_4$ )  $D_5 = C_L - (L_t + L_{ix})$ .